

AV-10 SANITARY TANK BOTTOM VALVES



APPLICATIONS

- AV-10 series tank bottom valve is a pneumatically operated single seat valve. It is mainly assembled at the bottom of a tank and widely used in dairy, food processing, beverage, pharmaceutical and fine chemical industries.

OPERATING PRINCIPLE

- Actuator can be operated by Air/Spring or Air/Air.
- Compressed air push shaft to open and close valve
- Construction: the valve seat opens inside so that it can avoid accident opening when pipeline is over pressure
- Product wetted parts: AISI 316L or AISI 304.
- Other steel parts: AISI 304
- Valve Seat (default): EPDM, complying with FDA 177.2600
- Internal surface finish: $Ra \leq 32 \mu\text{in}$ ($0.8\mu\text{m}$), better treatment available upon request.
- External surface finish: $Ra \leq 32 \mu\text{in}$ ($0.8\mu\text{m}$)



DESIGN AND FEATURES

- 3A sanitary design.
- Complete discharge system avoids retention.
- Normally closed valve (closed by spring, opened by air) is the default design, it can change to normally open valve (opened by spring, close by air) by 180° rotating the pneumatic actuator.
- Even after welding the flange end to the tank, the valve body can still be 360° adjustable.
- Open lantern for visual inspection of the shaft sealing conditions.
- Easy disassembly by loosening the clamp.

OPTIONS

- Manual type is available.
- Steam sterilized (if shaft sterilisation is required).
- C - TOP control unit.
- Internal surface finish: $Ra \leq 0.5 \mu m$.
- Gaskets: NBR or Viton (FPM).
- Connections: DIN, Clamp, SMS, RJT, IDF, Flange, etc.
- Double and single acting actuator, Air/Spring (NC/NO), Air/Air.

TECHNICAL SPECIFICATIONS

- Size: DN25/1" - DN 100/4"
- Working temperature: 14°F to 248°F (-10°C to +120°C) (EPDM), SIP max.30 mins under 248°F (140°C).
- Max. working pressure: 145 psi (10 bar).
- Compressed air pressure: 87 - 116 psi (6 - 8 bar)
- Air supply connections: G1/ 8" (BSP).





Tank bottom valve with C - TOP

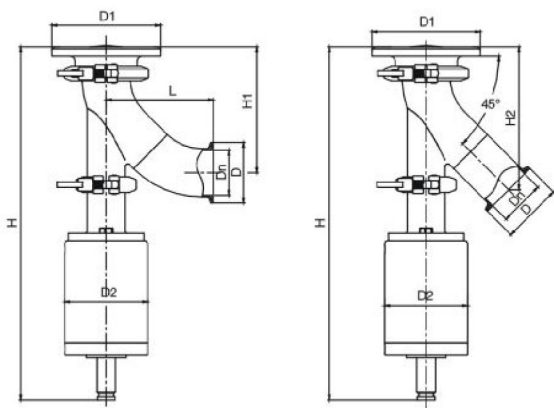
Tank bottom valve with position sensor

ELBOW TANK BOTTOM VALVE



Air consumption(L/one cycle)

Size ΦD1	Spring/air	Air/air
88	0.12	0.24
113	0.21	0.42
132	0.45	0.90
180	1.00	2.00

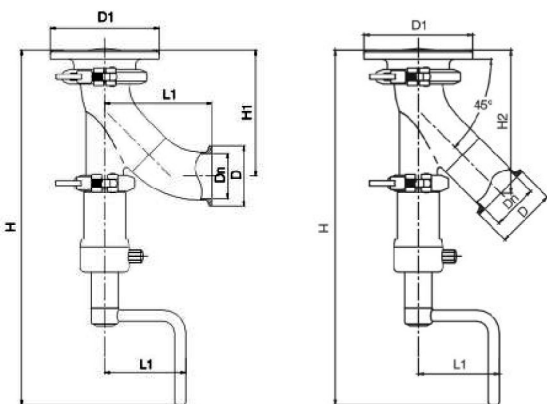


INCH

SIZE	Dn	D	D1	D2	H	H1	H2	L
1.5"	35.1	50.5	100	88	374.5	140	152	142
2"	47.8	64	115	88	374.5	133.5	152	114
2.5"	59.5	77.5	130	113	432	155.5	168	133.5
3"	72.2	91	150	113	453	179	186	152

DIN

SIZE	Dn	D	D1	D2	H	H1	H2	L
DN40	37	50.5	100	88	374.5	140	152	142
DN50	49	64	115	88	374.5	133.5	152	114
DN65	66	91	150	113	432	155.5	168	133.5
DN80	81	106	150	113	453	179	186	152



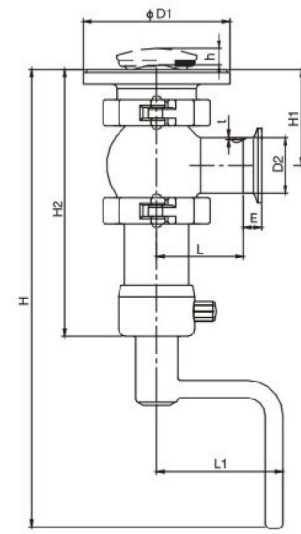
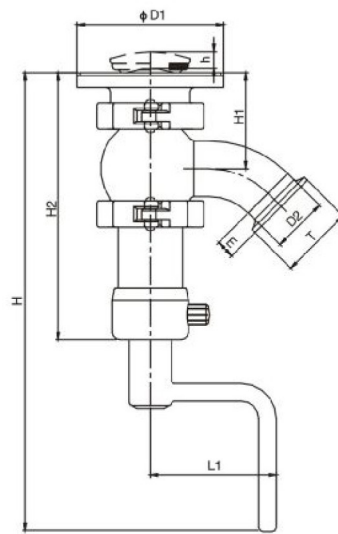
INCH

SIZE	Dn	D	D1	H	H1	H2	L	L1
1.5"	35.1	50.5	100	376.5	140	152	142	86
2"	47.8	64	115	376.5	133.5	152	114	86
2.5"	59.5	77.5	130	400	155.5	168	133.5	86
3"	72.2	91	150	424	179	186	152	86

DIN

SIZE	Dn	D	D1	H	H1	H2	L	L1
DN40	37	50.5	100	376.5	140	152	142	86
DN50	49	64	115	376.5	133.5	152	114	86
DN65	66	91	150	400	155.5	168	133.5	86
DN80	81	106	150	424	179	186	152	86

MANUAL TANK BOTTOM VALVE



Tank bottom valve flange connection (INCH)

SIZE	D1	D3	H	H1	H2	h	L	L1	T	t	E
1½"	100	38.1	313	85	182	30	60	86	50.5	1.5	12.7
2"	115	50.8	339	95	208	46	70	86	64	1.5	12.7
2½"	130	63.5	352	105	221	50	80	86	77.5	2.0	12.7
3"	150	76.2	368	120	237	52	99	86	91	2.0	12.7
4"	195	101.6	409	140	278	62	114	86	119	2.0	15.8

Tank bottom valve flange connection (DIN)

SIZE	D1	D2	H	H1	H2	h	L	L1	T	t	E
DN40	100	40	313	85	182	30	60	86	50.5	1.5	12.7
DN50	115	52	339	95	208	46	70	86	64	1.5	12.7
DN65	130	70	352	115	221	50	99	86	91	2.0	12.7
DN80	150	85	368	110	237	52	99	86	106	2.0	12.7
DN100	195	104	409	140	278	62	114	86	119	2.0	15.8

PNEUMATIC TANK BOTTOM VALVE (FLANGE TYPE)

Air consumption(L/one cycle)

Size ΦD1	Spring/air	Air/air
88	0.12	0.24
113	0.21	0.42
132	0.45	0.90
180	1.00	2.00

INCH

SIZE	D1	D2	D3	H	H1	h	L	T	t	E
1½"	100	88	38.1	350	85	30	60	50.5	1.5	12.7
2"	115	113	50.8	386	95	46	70	64	1.5	12.7
2½"	130	132	63.5	450	105	50	80	77.5	2.0	12.7
3"	150	132	76.2	450	120	52	99	91	2.0	12.7
4"	195	180	101.6	550	140	62	114	119	2.0	15.8

DIN

SIZE	D1	D2	D3	H	H1	h	L	T	t	E
DN40	100	88	40	350	85	30	60	50.5	1.5	12.7
DN50	115	113	52	386	95	46	70	64	1.5	12.7
DN65	130	132	70	450	115	50	99	91	2.0	12.7
DN80	150	132	85	450	110	52	99	106	2.0	12.7
DN100	195	180	104	550	140	62	114	119	2.0	15.8

